We Claim:

1. A purified multimeric polypeptide antigen (MPA) comprising at least one BU106 polypeptide said polypeptide having at least 50% identity to the polypeptides in SEQ ID NOS: 20-33, and at least other polypeptide together forming a molecular weight of at least 200 Kd.

2. The MPA of claim 1, wherein said polypeptides are complexed via a disulfide bond.

3. A purified multimeric polypeptide antigen (MPA) comprising at least one BS106 polypeptide said polypeptide having at lest 50% identity to the polypeptides in SEQ ID NOS: 20-33 complexed with another peptide to form a non-reductable complex having a molecular weight of approximately 120Kd.

4. A method of detecting the presence of a multimeric polypeptide antigen (MPA) in a test sample suspected of containing said MPA, wherein said MPA comprises at least one BU106 polypeptide and, at least, one other polypeptide, wherein said MPA has a molecular weight greater than 200Kd, said method comprising the steps of:

   (a) contacting said test sample with at least one antibody specific for at least one epitope of said MPA for a time and under conditions sufficient to allow the formation of antigen/antibody complexes; and

   (b) detecting said complexes, wherein presence of said complexes wherein said detection indicates the presence of said MPA in said test sample.

5. A method of detecting the presence of a multimeric polypeptide antigen (MPA) in a test sample suspected of containing said MPA, wherein said MPA comprises at least one BU106 polypeptide and, at least, one other polypeptide, wherein said MPA has a molecular weight greater than approximately 120Kd, said method comprising the steps of:

(a) contacting said test sample with at least one antibody specific for at least one epitope of said MPA for a time and under conditions sufficient to allow the formation of antigen/antibody complexes; and

(b) detecting said complexes, wherein detection of said complexes indicates the presence of said MPA in said test sample.

6. A purified polypeptide antigen comprising BUS106 polypeptide, said polypeptide having at least 50% identity to those polypeptides selected from the group consisting of SEQ ID NOS: 20-33 with at least two carbohydrate covalently linked at multiple sites, said sites selected from the group consisting of serine residue sites and threonine residue sites.

7. A purified polypeptide antigen comprising BS106 polypeptide, said polypeptide having at least 50% identity to those polypeptides selected from the group consisting of SEQ ID NOS: 20-33 and at least one carbohydrate.

8. A purified multimeric polypeptide antigen (MPA) comprising at least one BU106 polypeptide and at least one other polypeptide together forming a complex, said complex having molecular weight of approximately 50 to 80 kD.

9. An antibody which will specifically bind to the MPA of claim 1.

10. An antibody which will specifically bind to the MPA of claim 3.

11. An antibody which will specifically bind to the antigen of claim 6.

12. An antibody which will specifically bind to the antigen of claim 7.

13. An antibody which will specifically bind to the antigen of claim 8.

14. The cell line designated 106C1.

15. The method of claim 4, wherein said detection of said complex is indicative of breast disease.

16. The method of claim 5, wherein said detection of said complex is indicative of breast disease.

17. A diagnostic kit comprising a panel of breast markers comprising: at least one BS106 marker and at least one other breast-specific marker.

18. An antibody which specifically binds to a BU106 polypeptide wherein said BU106 polypeptide has at least 50% identity to SEQUENCE ID NOS. 20-33.

19. A method of detecting BU106 comprising:

(a) providing a patient sample;

(b) analyzing said sample for a polypeptide having a molecular weight selected from the group consisting of approximately 200 Kd and 120 Kd;

(c) detecting the presence of said polypeptide have said molecular weight.

20. A method for detecting cancer cells, if present, in a tissue sample from a human patient, the method comprising contacting a tissue sample from a patent with a recognition agent for BU106, and detecting binding of the recognition agent to BU106 protein in the prepared sample as an indication of the presence of cancer cells in the tissue sample.

21. A method according to claim 20 which includes the steps of obtaining from a patient a tissue sample to be tested for the presence of cancer cells; and producing a prepared sample in a sample preparation process; prior to contacting the prepared sample with a recognition agent that reacts with BU106 protein.

22. The method of claim 21 wherein binding of said recognition agent to BU106 protein in sample is detected by immunohistochemical analysis.

23. The method of claim 22, wherein the sample preparation process comprises contacting the tissue with fixative and producing a thin seciton suitable for immunohistochemical analysis.

24. The method of claim 20 wherein said BU106 is in complexed form.